

**Notice of Allowability**

Application No.

10/849,349

Examiner

Derek S. Chapel

Applicant(s)

MATSUNAGA, MOTOMI

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/9/07.
2. ☒ The allowed claim(s) is/are 1-5 and 8-14 (renumbered 1-12).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Status Of Claims***

1. This Office Action is in response to an amendment received 10/9/2007 in which Applicant lists claims 6-7 as being cancelled, claims 3-5 as being original, claims 2 and 9-13 as being previously presented, and claims 1, 8 and 14 as being currently amended. It is interpreted by the examiner that claims 1-5 and 8-14 are pending.

### ***Claim Objections***

2. The amendments to the claims dated 10/9/2007 are accepted. The objections to the claims cited in the office action mailed 5/7/2007 are hereby withdrawn.

### ***Claim Rejections - 35 USC § 112***

3. The amendments to the claims dated 10/9/2007 are accepted. The rejections to the claims made under 35 USC 112 first paragraph and cited in the office action mailed 5/7/2007 are hereby withdrawn.

## **EXAMINER'S AMENDMENT**

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Andrea Wayda (43,979) 212-415-8545 on 12/11/200.

The application has been amended as follows:

"travels toward a substantially opposite side to a reflecting side in the previous reflection" was changed to --travels in a direction substantially opposite to a reflecting direction in the previous reflection-- on line 13 of claim 1 and line 16 of claim 8.

***Allowable Subject Matter***

5. Claims 1-5 and 8-14 are allowed.
6. The following is an examiner's statement of reasons for allowance:

Claims 1 and 8 are allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a system or apparatus wherein a combined optical power provided by an emergent surface of the second optical element and an incident surface of the first optical element is a negative optical power, and the optical system forms an intermediate image in the first optical element and wherein the first optical element includes at least a first surface which has a reflecting action and a second surface which reflects the displaying luminous flux reflected by the first surface back toward the first surface such that a central principal ray of the displaying luminous flux incident again on the first surface is reflected and travels in a direction substantially opposite to a reflecting direction in the previous reflection at the first surface with respect to a normal to the first surface at a hit point of the central principal ray, as generally set forth in claims 1 and 8, the device including, in

combination with the features recited in claims 1 and 8. Claims 2-5 depend from claim 1 and are therefore allowable for at least the same reason as claim 1.

Claims 9 and 14 are allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a system or apparatus wherein a combined optical power provided by an emergent surface of the second optical element and an incident surface of the first optical element is a negative optical power, and the optical system forms an intermediate image in the first optical element and wherein the optical system includes a case where an inner product which is formed between outer products each formed by a vector indicating incident light and a vector indicating reflected light in the respective reflections at the reflective surface is negative, as generally set forth in claims 9 and 14, the device including, in combination with the features recited in claims 9 and 14. Claims 10-13 depend from claim 9 and are therefore allowable for at least the same reason as claim 9.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

7. Applicant's arguments, see pages 7-8 of the remarks, filed 10/9/2007, with respect to the rejections of claims 1, 3-5 and 8 under 35 U.S.C. 102(b) as being anticipated by Takeyama and claims 9 and 11-14 under 35 U.S.C. 102(e) as being

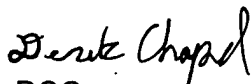
anticipated by Takagi, have been fully considered and are persuasive. The rejections of the claims have been withdrawn.

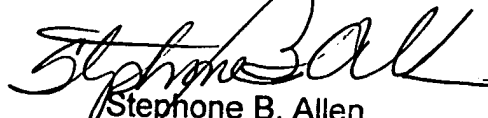
**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek S. Chapel whose telephone number is 571-272-8042. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
DSC  
12/11/2007

  
Stephone B. Allen  
Supervisory Patent Examiner